

HELIANTHEMUM BICKNELLI AND *H. PROPINQUUM*.

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HELIANTHEMUM **Bicknellii**, nom. nov.—*H. majus* Bicknell, Bull. Torr. Bot. Cl. xxi. 259 (1894), not *H. majus* (L.) BSP. Prel. Cat, 6 (1888), which was merely a nomenclatorial transfer of *Lechea major* L. Sp. Pl. i. 90 (1753). Since Bicknell cites no type the following may stand as TYPE: fruiting material from gravelly bank, Bangor, Maine, August 7, 1908, *Fernald* in Gray Herb.

Dr. S. F. Blake has recently shown,<sup>1</sup> as had already been suspected, that the Linnean *Lechea major* is identical with *Cistus canadensis* L. Sp. Pl. i. 526 (1753) and *Helianthemum canadense* (L.) Michx, Fl. Bor.-Am. i. 308 (1803). Consequently the name *H. majus* can no longer be applied to the stout and erect hoary-canescant plant to which, following Bicknell's clear discrimination, it has for a quarter-century been applied. Blake consequently has taken up for Bicknell's *H. majus* the name *H. propinquum* Bicknell in Britton, Man. ed. 2, 1069 (1905), stating that from the herbarium material he was unable "to discover any characters which seem to justify the separation of the plant as a species distinct from the *H. majus* of our present-day manuals — a conclusion in which I have the support of Prof. Fernald."

Had Dr. Blake, however, accompanied the present writer and Mr. Bayard Long during the summer of 1918 in a somewhat intensive study of the flora of Cape Cod he would at once have seen that *H. propinquum* has little in common with "*H. majus* of our present-day manuals," the plant here proposed as *H. Bicknellii*. *H. Bicknellii* is a coarse plant, the coarsest of our species, with the erect slightly cespitose stems 3–6 dm. high; *H. propinquum*, as well characterized by Bicknell, is lower, with much more slender, flexuous stems 1–3 dm. high, these sometimes arising separately (sometimes at intervals of 1 dm. or more) from the often slender rootstock. In *H. Bicknellii* the petaliferous flowers, on pedicels 0.3–1 cm. long, expand on Cape Cod as on Nantucket<sup>2</sup> from the 10th of July to the 10th of August, but *H. propinquum*, with pedicels becoming 1–1.6 cm. long, was in con-

<sup>1</sup> RHODORA, xx. 49 (1918).

<sup>2</sup> See Bicknell, Bull. Torr. Bot. Cl. xl. 614 (1913).

spicuous flower on June 20th, the capsules were well formed on the 30th and the last petaliferous flowers were gone and the seeds of the early capsules fully grown by the 4th of July. In other words *H. propinquum* had mature vernal fruit before the first petaliferous flowers of *H. Bicknellii* began to show, and the present writer, misled by Blake's identification of *H. propinquum* with *H. majus* Bicknell, supposed he was collecting an undescribed and remarkably distinct species. There are other characters, some of which have been brought out by Bicknell, but these await more detailed inspection. On Cape Cod as farther south *Helianthemum* is a critical genus, and the past summer's observations indicate that there are other species or well-marked varieties to be recognized. So striking are some of these plants that the present writer felt it important to make as thorough collections as possible and in this genus alone (aided for a happy month by Mr. Long and for one memorable day by Mr. Weatherby) he consequently collected 850 sheets for future consideration.

Although *H. propinquum* has been referred by Dr. Britton<sup>1</sup> to *H. georgianum* Chapman it does not seem to be quite identical with it. Bicknell (l. c. 616) has noted one important difference; and such material of *H. georgianum* as the writer has seen shows very much smaller anthers than in *H. propinquum* and the pubescence of the calyx much shorter, while the plant has a tendency to form winter-rosettes of basal leaves, a character not seen in our northern plants.

GRAY HERBARIUM.

<sup>1</sup> Britton in Britton & Brown, Ill. Fl. ed. 2, ii. 540 (1913).